

### VARIABLE VIBRATORY MECHANISM

A vibratory mechanism includes first and second eccentric weights connected to a gearbox. The gearbox includes an inner shaft, an outer shaft and first and second planetary gear sets. The first and second planetary gear sets are connected to a motor that drives the first and second eccentric weights during operation via the inner shaft and outer shaft respectively. A phase control device is operatively connected to the second planetary gear set to index the second eccentric weight relative to the first eccentric weight.